

**HEALTH & SAFETY COMMITTEE**  
Focus of the Month

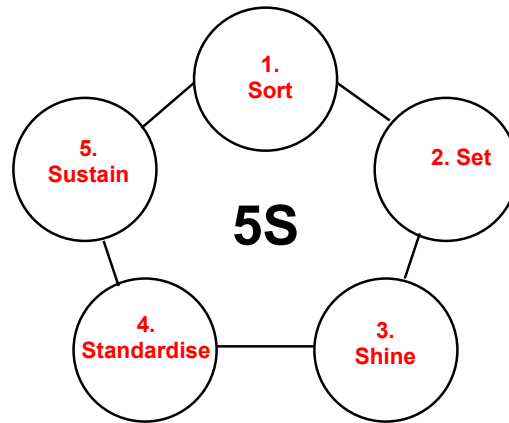
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**The “5S” Approach to Eliminating Wasteful Practices**

Let's face it, we all face tough challenges and competitive pressures continue unabated. Prices are too low, and costs are too high. Companies strive to reduce costs. Some look to improve technology. Some reduce headcount. Too few have become operationally excellent, therefore costs pile up in the form of defects and waste.

To try and achieve operational excellence, reduce costs in the long term, and culture change, members should consider implementing the 5S system (or their own version of the system that suits their business), which is a workplace organisation and housekeeping system. When applied correctly, the benefits are enormous in terms of productivity, quality, morale and ultimately safety.

There are variations to some of the 5S's as they were derived from 5 Japanese words beginning with “S”.



Most organisations apply the 5S system in one area at a time rather than across an entire facility at once.



The first “S” is **Sort**. It is the process of removing all unnecessary items from the workplace area. This first step is crucial to gaining efficiency through workplace design. A common method called the “red tag method” is often utilised, where all items are tagged which aren't necessary for the specific area. These unnecessary items tagged are then moved to a “hold” area for review and possible disposal.

The second “S” is **Set in Place**. This is the process of moving the necessary items into the correct position for use. It is the process of organising the work area to be perfectly laid out for maximum efficiency through minimising movement. All materials and items that will be used at the job site are to be positioned and kept close to the point of use. For example, if a tool is only to be used at the end of a machine, it should be kept there. A common method used is called “shadow boards”, where the exact dimension of the tool is painted onto the board depicting the spot in which to hang the tool. It becomes obvious where the tool belongs.



It is important that **Sort** and **Set** are completed as a joint effort between management and workforces.



The third “S” is **Shine**. This is the method of deep cleaning a machine or area to put it back into the condition it was when it was purchased. The idea is that quality and efficiency will not suffer if the machine is not allowed to deteriorate over time. Machines that are kept in new condition have less downtime and produce the same quality level as a new machine. It is advised that a specific time be set for a shutdown and clean of all machinery with no exceptions.

The fourth “S” is **Standardise**. This is the process of standardising the entire system, which is often the most difficult. Most companies have conducted the first three S’s many times, only to watch the condition deteriorate over time. This cycle of cleaning up followed by gradual deterioration has been repeated over and over for years. The “Standardise” portion of the system corrects this problem.



The best way to standardise the system is to determine exactly what needs done to maintain the system. It is the “who, what, when, where” of 5S. For example, if a specific portion of a machine needs to be cleaned daily, there should be a checklist and written instructions detailing who will do it, when it will be done, and methods and materials necessary.

The last “S” is **Sustain**. Sustaining the system is thought to be one of the most difficult, primarily because experience proved years of cleaning and organisation were not maintained. However, if the system is standardised in the fourth S, then sustaining it is much easier.

The best method of sustaining the system is to conduct audits. Care must be exercised so the audit system is not punitive. The 5S system relies on employee involvement and commitment at all levels, and a punitive audit system can destroy the system. One good way of auditing the system is with a rotating audit crew of peers. This might be the plant workers auditing the system of their co-workers. The results are provided to the employees in the audited area and time given to correct deficiencies.

A good 5S implementation has many benefits. The assets of the company are kept in top condition which keeps the value high. Quality is kept at the level when the asset or machine was first installed. Maintenance costs are reduced as deterioration is immediately apparent. Setup times go down from better organisation and reduced movement. The best benefit is the morale improvement from an improved environment, culture and safety improves as a result.

Some managers think employees will not sustain a perfectly clean environment especially in the steel industry. Like most systems, management is the reason the system succeeds or fails. Given the chance, employees will implement and sustain the 5S system. Most employees will choose an organised and clean workplace with a continuous improvement culture over a dirty disorganised facility and buy in from employees prompts self-policing to ensure that the programme continues.

### Conclusion

Although 5S will not solve today’s competitive challenges, it does provide a solid foundation for achieving operational and safety excellence. In fact, some world-class companies claim that there can be no improvement without 5S.

The teamwork and discipline built through 5S improve worker-to-worker and worker-to-manager relationships. When people see that what they do makes a difference, and when they see that they have eliminated wasteful practices, their working environment has improved, accidents have been reduced and their pride grows. This is perhaps the greatest benefit of 5S and by taking plenty of before and after photographs, progress can be easily identified by everyone involved.

**DISCLAIMER: This is the opinion of the NASS H&S Committee but only the courts can interpret the law. All employers should refer to the legislation.**